CLAIM LISTING

A listing of the currently pending claims is as follows:

1-28 (Cancelled)

29. (Previously presented) A braking force amplifier with dual amplification ratios comprising:

a piston operated by a pressure differential between a front chamber and a back chamber, the piston comprising a first piston bearing surface coaxial with a second piston bearing surface;

a plunger operably attached to a brake pedal and axially displaceable within the piston to control the pressure differential;

a thrust assembly comprising a reaction rod, operably connected to a master-cylinder and mounted to be axially displaceable under control of the plunger between a first braking state and a second braking state, the reaction rod further including a flat head mounted to be axially displaceable within a sleeve;

a deformable reaction disc interposed between the piston and the flat head, said reaction disc disposed within the sleeve and held within the sleeve by an annular flange, the flange including a central orifice and forming a sleeve bearing surface axially separated from the second piston bearing surface when the assembly is in the first braking state and the sleeve bearing surface not axially separated from the second piston bearing surface when the assembly is in the second braking state, and wherein movement of the assembly from the first braking state to the second braking state deforms the reaction disc, said deformation absorbed by a distance between an internal surface of the disc and the annular flange.

30. (Previously presented) The amplifier of claim 28 further comprising elastic means permitting a reaction force to be applied to the flat head.

31. (Previously presented) The amplifier of claim 28 wherein the elastic means is between an internal stop of the sleeve on one side of the flat head opposite the reaction disc

32. (Previously presented) The amplifier of claim 30 wherein the elastic means is a conical washer.

33. (Previously presented) The amplifier of claim 28 wherein the deformation is a function of stiffness of the reaction disc.

34. (Previously presented) The amplifier of claim 28 wherein the first piston bearing surface and sleeve bearing surface are annular and co-axial.

35. (Previously presented) The amplifier of claim 29 wherein the central orifice is circular and the end of the piston able to slide in the central orifice is circular.

36. (Previously presented) The amplifier of claim 29 wherein first amplification ratio is constant.

37. (Previously presented) The amplifier of claim 29 wherein second amplification ratio is constant.

38. (Previously presented) The amplifier of claim 29 wherein the plunger comprises a plunger bearing surface comprising a diameter D_1 the first piston bearing surface comprises a diameter D_2 and the second piston bearing surface comprises a diameter D_3 and the ratio of amplification of the braking force is substantially equal to $(D_2/D_1)^2$ while in the first braking state and the ratio of amplification of the braking force is substantially equal to $(D_3/D_1)^2$ while in the second braking state.

39. (Previously presented) The amplifier of claim 38 wherein the transition from the first braking state to the second braking state is nonlinear.

40. (Previously presented) A braking force amplifier with dual amplification ratios comprising:

a piston operated by a pressure differential between a front chamber and a back chamber, the piston comprising a first piston bearing surface;

a plunger operably attached to a brake pedal and axially displaceable within the piston to control the pressure differential;

a thrust assembly comprising a reaction rod, operably connected to a master-cylinder and mounted to be axially displaceable under control of the plunger between a first braking state and a second braking state, the reaction rod further including a flat head mounted to be axially displaceable within a sleeve;

a deformable reaction disc interposed between the piston and the flat head, said reaction disc disposed within the sleeve and held within the sleeve by an annular flange, the flange including a central orifice and forming a sleeve bearing surface, and wherein movement of the assembly from the first braking state to the second braking state deforms the reaction disc, said deformation absorbed by an axial distance between an internal surface of the disc and the annular flange.

41. (Previously presented) The amplifier of claim 40 further comprising elastic means permitting a reaction force to be applied to the flat head.

42. (Previously presented) The amplifier of claim 41 wherein the elastic means is between an internal stop of the sleeve on one side of the flat head opposite the reaction disc.

43. (Previously presented) The amplifier of claim 42 wherein the elastic means is a conical washer.

44. (Previously presented) The amplifier of claim 40 wherein the deformation is a function of stiffness of the reaction disc.

45. (Previously presented) The amplifier of claim 40 wherein the first piston bearing surface and sleeve bearing surface are annular and co-axial.

46. (Previously presented) The amplifier of claim 40 wherein the central orifice is circular and the end of the piston able to slide in the central orifice is circular.

47. (Previously presented) The amplifier of claim 40 wherein the first amplification ratio is constant.

48. (Previously presented) The amplifier of claim 40 wherein the second amplification ratio is constant.

49. (Previously presented) A braking force amplifier with dual amplification ratios comprising:

a piston comprising a first piston bearing surface;

means for controlling the pressure differential by switching means;

a thrust assembly comprising means for connecting to a master cylinder;

a deformable reaction disc interposed between the piston and the connecting means for connecting to a master cylinder, and wherein movement of the assembly from a first braking state to a second braking state deforms the reaction disc, said deformation absorbed by an axial distance between an internal surface of the disc and the annular flange.